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AIR MINISTRY

Air Navigation Acts, 1920
and 1936

THE AIR NAVIGATION REGULATIONS, 1937

Made by the Secretary of State for Air under the Air Navigation (Consolidation) Order, 1923.

18*th January*, 1937

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AIR NAVIGATION ACTS, 1920 and 1936

REGULATIONS

In pursuance of the powers conferred upon me by the Air Navigation (Consolidation) Order, 1923, as authorised by the Air Navigation Acts, 1920 and 1936, and all other powers enabling me in that behalf, I, the Right Honourable Philip Cunliffe-Lister, Viscount Swinton, G.B.E., M.C., one of His Majesty's Principal Secretaries of State, make the following Regulations, amending the Air Navigation Directions, 1936 (A.N.D.13), as amended by the Air Navigation Directions, 1936 (A.N.D.13A), which first-mentioned Directions as so amended are hereinafter referred to as " the said Directions ".

1. For paragraph 33 of the said Directions, the following paragraphs shall be substituted :—

" 33. (1) Every flying machine registered in Great Britain and Northern Ireland for which a certificate of airworthiness is for the time being in force shall carry, exhibited in a prominent position inside it, a weight schedule in the following form :—

WEIGHT SCHEDULE

AIRCRAFT

(*Insert* nationality and registration marks)

A.—*Weight Empty* *lbs.*

(i) Weight of aircraft, including water in system when fitted with liquid cooled engine(s), and also including all items of fixed equipment and fixed portions of wireless or other equipment

(ii) Items included in the above weight as fixed equipment or fixed portions of equipment, viz. :—

.....

.....

.....

.....

B.—*Weight of Equipment regarded as Removable Equipment* *lbs.*

(i) Weights of all items of equipment (or portions thereof) regarded as removable, *exclusive of wireless equipment or portions thereof*, viz. :—

.....

.....

.....

.....

TOTAL

(ii) Weights of all items of wireless equipment (or portions thereof) regarded as removable, viz. :—

.....
.....
.....
.....

TOTAL

(2) Every such flying machine shall also bear clearly painted upon it in a prominent position :—

(*a*) Its weight empty as arrived at in the manner indicated in A (i) of the above form of weight schedule, that is to say, its weight including water in system when fitted with liquid cooled engine(s), and also including all items of fixed equipment and fixed portions of wireless or other equipment.

(*b*) The maximum total weight authorised for it, as shown for the time being in its certificate of airworthiness.

(3) If any alteration affecting the weight of any such aircraft or its equipment, whether fixed or removable, has been made since it was last weighed, the weight schedule which it carries in accordance with sub-paragraph (1) of this paragraph shall be amended accordingly or replaced by a revised schedule.

33A. When a flying machine for which a certificate of airworthiness is in force is re-weighed in accordance with paragraph 32 (*b*), the items of fixed equipment and fixed portions of equipment which it carries shall be checked against the weight schedule referred to in paragraph 33."

2. For paragraph 37 of the said Directions, the following paragraph shall be substituted :—

"37. Principles of classification.—Every flying machine for which a certificate of airworthiness is granted will be classified on such certificate as belonging to one of the following categories, and to one or more of the following sub-divisions :—

(1) 'Normal' Category :—
Subdivision (*a*) ; public transport machines for passengers.
Subdivision (*b*) ; public transport machines for mails.
Subdivision (*c*) ; public transport machines for goods.
Subdivision (*d*) ; private machines.
Subdivision (*e*) ; aerial work machines.

(2) 'Special' Category :—
Subdivision (*f*) ; racing or record machines.
Subdivision (*g*) ; research or experimental machines.

(3) 'Acrobatic' Category :—
Subdivisions (*a*) to (*g*) in the two preceding categories.

The following definitions apply to the above-mentioned subdivisions :—

'Public transport machines' means machines which may be used for carrying passengers, mails, or goods (as the case may be) for hire or reward or, where the carriage is effected by an air transport undertaking, whether for hire or reward or not.

'Aerial work machines' means machines which may be used for any commercial or industrial purpose or any lucrative purpose

other than the carriage of passengers, mails or goods under the conditions specified in the above definition of ' public transport machines '. (These purposes, which may depend on the incorporation of special structural features or equipment, may be limited by the certificate of airworthiness.)

' Private machines ' means machines which may be used for purposes other than those specified in the above definitions, of ' public transport machines ' and ' aerial work machines '.

' Racing or record machines ' means machines which may be used for sporting or technical performances to the exclusion of any other use whatever.

' Research or experimental machines ' means machines which may be used for experimenting in flight, to the exclusion of any other use whatever."

3. In paragraph 38 of the said Directions, the following sub-paragraph shall be substituted for the sub-paragraph headed " Normal Category " :—

" Machines in the Normal Category, subdivisions (*a*) to (*e*), must not be flown at indicated air speeds greatly in excess of the indicated air speed corresponding to steady horizontal flight at the international number of revolutions per minute, as specified in the certificate of airworthiness, at the rated altitude of the engine(s) and must not in any circumstances be flown at speeds greater than (*a*) 50 per cent. in excess of the above-mentioned speed, or (*b*) the greatest speed at which the aircraft was proved to be satisfactory during its flying trials (or, in the case of a subsequent aircraft, those of the type aircraft) under paragraph 24, whichever of these two speeds, (*a*) or (*b*), is the lower. They are precluded from any evolution which might lead to abrupt variations in altitude."

X 4. Paragraph 64 (1) of the said Directions shall be amended as follows :—

ANR, 18-9-37.

(1) Sub-paragraphs (iii), (iv) and (v) shall be renumbered (iv), (v) and (vi) respectively, and after sub-paragraph (ii) the following sub-paragraph shall be inserted :—

" (iii) In boat seaplanes whose weight fully loaded exceeds 5,000 lbs. :—

Such fittings and accessories as are necessary for manoeuvring in harbour, including at least two drogues capable of being paid out astern while the seaplane is being towed."

(2) In sub-paragraph (v) (*c*) (renumbered (vi) (*c*)) for the words " beyond the point of departure " the words " from the point of departure " shall be substituted.

(3) For sub-paragraph (v) (*f*) (renumbered (vi) (*f*)), the following provision shall be substituted :—

" (*f*) For flights at any point of which the machine is more than ten miles from the nearest land :—

Lifebelt for each person on board.

Notices are to be displayed in the cabin of the aircraft stating where the lifebelts are situated and instructing passengers how to use them in the event of their being required. The place of stowage is to be clearly and prominently marked ' Lifebelt ' or ' Lifebelts ' as the case may be."

5. After paragraph 85 of the said Directions, the following paragraph shall be inserted :—

"85A. Licences will be granted only for the class of flying machines on which the practical tests provided for in paragraphs 98 and 99 have been carried out."

6. Paragraph 86 of the said Directions shall be amended as follows :—

(1) In sub-paragraph (3), the words "or navigator's licence" shall be omitted.

(2) The following sub-paragraph shall be added :—

"(4) Navigator's licence : not more than twelve months, provided, however, that licences which, prior to the 1st January, 1937, have been issued or renewed for a longer period shall remain valid until the expiration of that period."

7. For sub-paragraph (*d*) of paragraph 93 of the said Directions, the following sub-paragraph shall be substituted :—

"(*d*) *Eye Examination.*—The applicant must possess a degree of visual acuity compatible with the efficient performance of his duties. Binocular vision, ocular poise, ocular mobility, the field of vision of each eye and colour perception must be normal.

Pilots must possess, with correction by glasses if necessary, visual acuity equal to at least 70 per cent. of the normal visual acuity for each eye taken separately, the visual acuity being measured by means of standard test types powerfully illuminated in such a manner that the light does not shine directly into the eyes of the examinee.

With regard to colour perception, an applicant for a pilot's licence to fly private flying machines who is suffering from daltonism may, however, be accepted under the following conditions :—

(i) If he is unable to distinguish pigmentary colours but is able to distinguish the coloured lights used in air navigation, his licence may be made valid both for flight by night and for flight by day.

(ii) If he is unable to distinguish either pigmentary colours or the coloured lights used in air navigation, his licence may be made valid only for flight by day, that is to say, for flights effected between sunrise and sunset.

Navigators must possess, with correction by glasses if necessary, a visual acuity equal to 100 per cent., that is to say, normal for each eye taken separately. Visual acuity shall be measured by means of standard test types powerfully illuminated in such a manner that the light does not shine directly into the eyes of the examinee. Binocular vision, ocular poise, ocular mobility, the field of vision of each eye and colour perception must be normal."

8. For sub-paragraph (*e*) of paragraph 96 of the said Directions, the following sub-paragraph shall be substituted :—

" (*e*) *Eye Examination.*—The applicant must possess a degree of visual acuity compatible with the efficient performance of his duties. Binocular vision, ocular poise, ocular mobility, the field of vision of each eye and colour perception must be normal.

He must possess, without correction by glasses, visual acuity equal to at least 80 per cent. of the normal visual acuity for each eye taken separately, or 90 per cent. for one eye and 70 per cent. for the other.

The holder of a licence no longer fulfilling these requirements of visual acuity may, however, be regarded as eligible to continue to hold his licence :—

(i) When he has effected, as pilot of public transport or aerial work flying machines, at least 1,000 hours of flight and his visual acuity, measured without correction by glasses, is equal to at least 70 per cent. of the normal visual acuity for each eye taken separately.

(ii) When he has effected, as a pilot of public transport or aerial work flying machines, at least 2,000 hours of flight and his visual acuity, measured without correction by glasses, is equal to at least 50 per cent. of the normal visual acuity for each eye taken separately.

These relaxations shall also be applicable to an applicant having already effected the same number of hours of flight as pilot of a State aircraft.

Visual acuity shall be measured by means of standard test types powerfully illuminated in such a manner that the light does not shine directly into the eyes of the examinee."

9. These Regulations may be cited as the Air Navigation Regulations, 1937.

10. These Regulations shall come into operation on the 1st April, 1937.

SWINTON,
Secretary of State for Air.

Air Ministry,
18*th January*, 1937.

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